

A NEW JAPANESE SPECIES OF THE DACETINE ANT GENUS *EPITRITUS*

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In 1949, Mr. Kikumaro Okano, of Numazu City, Japan, sent me for study a dealate female of an unusual dacetine which on first examination seemed to represent a new genus. It was obvious that this species was related to *Epitritus argiolus* Emery, representing what has been a monotypic genus of the Mediterranean area, but in place of the four antennal segments of *argiolus*, the Japanese example had six, proportioned as in *Strumigenys* and *Smithistruma*. There were certain other differences between the two species, of the kind normally associated with species-level distinctions among the higher Dacetini, in such details as head width, mandibular dentition, and pilosity. In 1956, Dr. Keizō Yasumatsu of Kyushu University passed on to me a pair of workers obviously belonging to the same species as Okano's female from Honshu. These workers proved to have the same kind of hypertrophied mesonotum as do workers of *argiolus*, with minor differences in detail, so the relationship between the Japanese and Mediterranean species was revealed as very close indeed.

Even before considering these two species, however, I had given much thought to a re-evaluation of certain characters to which I had attributed generic weight in my preliminary generic revision of the Dacetini (Brown, 1948). Much new evidence now indicates that my earlier emphasis on antennal segmentation as a character to separate genera was unduly heavy. This is particularly true of the four-segmented species, which now appear to represent several different independent derivations from various *strumigenite* stocks by means of the easy step of loss of the two small median segments of the funiculus (II and III) (Brown, 1949a, 1953, 1954). If antennal segmentation is deemphasized, then there seems little choice but to include the hexamerous Japanese species in one genus with the tetramerous *argiolus*. This done, the distribution of *Epitritus* takes on considerable zoogeographic interest, especially since the genus is morphologically intermediate between the large genera *Strumigenys* F. Smith and *Smithistruma* Brown in several respects. Whether the mandibular structure and dentition of *Epitritus* represents a modification of the *Strumigenys* form or of the *Smithistruma* form is an open

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question, although I am inclined to think that the *Smithistruma* relationship is closest. If so, then the apical fork of *Epitritus* is a secondary development based primarily on the enlargement of one of the former serial teeth into the long, spiniform "dorsal apical" tooth now so characteristic of both species. Convergently similar "dorsal apical teeth" are seen in the dacetine *Strumigenys chapmani* Brown and in the species of the genus *Heptastruma* Weber (Basicerotini).

***Epitritus hexamerus* sp. nov.**

(Text-figures 1, 2, 3)

Holotype worker: TL 2.15, HL 0.50, HW 0.53 (CI 106), ML 0.18 (MI 36), WL 0.57, scape L 0.25, funiculus L 0.43 mm.

Shape of head and mandibles shown in fig. 1; apex of mandible in fig. 2. Head broader and more depressed than in *argiolus*, and the sides of the occipital lobes are nearly straight. A major difference exists in the antennae, which in the new species have sublobosely broadened scapes and 5-segmented funiculi patterned like those of *Strumigenys* spp. The mandible of *hexamerus* has a smaller, more acute basal lamella and only two preapical teeth (corresponding perhaps to the largest two of the four in *argiolus*), but *hexamerus* has more (11) fine denticles in the apical series (6 in *argiolus*).

Alitrunk depressed anteriorly, the pronotum together with the anterior part of the mesonotum forming a flat and almost perfectly circular disc. Mesonotum greatly elongate as in *argiolus*, and similarly slightly constricted near midlength as seen from above; fan-shaped anterior portion meeting pronotum along a feeble semicircular sulcus; narrower posterior portion extending back, crowding the propodeum and overriding its anterior part, from which it is separated by a fine but distinct crease or suture. Seen from the side (fig. 3), the mesonotal outline is nearly straight and horizontal, beginning slightly below the level of the posterior pronotal border, but appearing more distinctly lower owing to the large squamiform hairs covering the pronotum, but lacking from the anterior mesonotum. (Pilosity omitted in profile outline of fig. 3.) There is no posterior low convexity rising dorsad in *hexamerus*, as there is in *argiolus*.

Petiolar node distinct, of moderate height, dorsally rounded, slightly longer than its anterior peduncle; its anterior slope bicarinate. Spongiform appendages restricted to a small postero-lateral lobe on each side and a midventral strip of moderate width. Postpetiole transversely ellipsoidal, nearly twice as wide as the petiolar node; convex, smooth and shining over the disc; its spongiform appendages voluminous at the sides and below, with narrow borders also along the anterior and posterior margins. Gaster with anterior spongiform margin and coarse basal longitudinal costulation, extending about 1/4 the length of the first segment. Gaster otherwise smooth and shining. Body and appendages densely punctulate-reticulate and opaque.

Pilosity of head and scapes consisting largely of conspicuous, subappressed, orbicular squamiform hairs (fig. 1); similar hairs clothe the pronotum, petiolar node, and front and side edges of postpetiole. Smaller cochlear to spatulate hairs on middle and posterior mesonotum (a row of 4 along its posterior margin, making

this margin higher and more conspicuous than it otherwise would be), on clypeus and on legs. Conspicuous oblique linear-spatulate hairs are situated along the inner mandibular borders, one each over the basal lamellae and preapical teeth; a large curved-spatulate hair rests over each propodeal tooth. Slender, stiffly outstanding clavate hairs, 4 on posterior postpetiole, slanting caudad, and about 7 rows of 4-6 hairs each on the gastric dorsum, those nearest apex becoming more slender, with simple apices. Gula, tarsi and funiculi with short, fine, appressed and decumbent hairs.

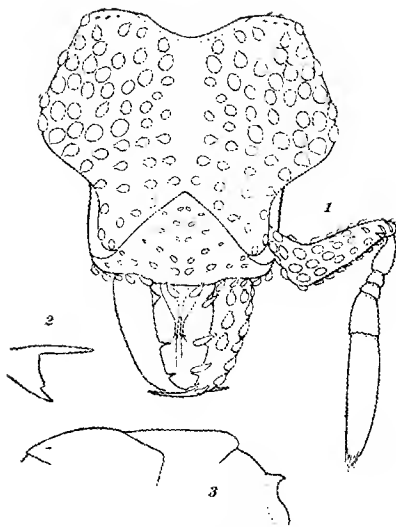
Color yellowish ferruginous.

Holotype worker [Collection of the Laboratory of Entomology, Kyushu University] and one very closely similar paratype worker [Museum of Comparative Zoology, Harvard University] taken together at Korasan, Prov. Chikugo, Kyushu, Japan (S. Miyamoto leg., IX-25-1955).

Paratype female, from Sige-tôge, Numazu City, Honshu (K. Okano leg., V-22-1949), under a stone, altitude ca. 250 m. (dealate).

TL 2.8, HL 0.60, ML 0.20, WL 0.76, scape L 0.27, funiculus L 0.49 mm. CI 102, MI 34. Eyes moderate in size, well underneath on dorsal scrobe borders. Alitrunk robust, humeri very weakly subangulate, without tubercles. Mesonotum gently convex; scutellum rounded behind and not strongly projecting. Propodeal teeth extremely small, with infradental lamellae. Parapsidal furrows fine but distinct. Petiolar node shorter and broader than in worker, the anterior face more concave and the two carinae more distinct, forming a miniature peak on each side above. Mesonotum with orbicular squamiform hairs like those of head. As in the worker, there are no erect specialized hairs on head or alitrunk. The paratype female unfortunately lost its head in a shipping accident following description; it is being retained at the Museum of Comparative Zoology awaiting Mr. Okano's pleasure concerning its disposition.

Epitritus hexamerus is abundantly distinct from the only other known species of the genus, *E. argiolus*, by characters already discussed in the description. From the other dacetines of the Orient, *E. hexamerus* is clearly distinct; in my key to the dacetine species of Japan, China and Taiwan (Brown, 1949b), it would key most easily to couplet 4 (*Strumigenys*), but here it would separate from both



Figs. 1-3. *Epitritus hexamerus* sp. nov.

Fig. 1, head of worker, tilted slightly forward and pilosity partly removed to show mandibular dentition better; other pilosity partly restored. Fig. 2, apical portion of mandible seen end-on, slightly enlarged over fig. 1. Fig. 3, alitrunk of worker, dorsal profile from side view, pilosity omitted (Holotype).

alternatives in the couplet by possessing two, instead of one, spiniform teeth on each inner mandibular border before the apex; also *hexamerus* has long labral lobes, short trigger-hairs, triangular basal lamellae and other features found in no Oriental *Strumigenys*.

References

- Brown, W. L., Jr.
1948. Trans. Amer. Ent. Soc., 74: 101-129.
1949a. *Ibid.*, 75: 43-51.
1949b. Mushi, 20: 1-25.
1953. Amer. Midl. Nat., 50: 1-137 (cf. pp. 7-15).
1954. Bull. Mus. Comp. Zool., 112: 1-34.